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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/026,547	12/24/2001	David G. Hostetter	2001-087-ICE	9585

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EXAMINER
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CONNOLLY, MARK A

ART UNIT	PAPER NUMBER
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2115

DATE MAILED: 06/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/026,547		HOSTETTER ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Mark Connolly		2115	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 29 March 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Claims 1-42 have been presented for examination.

### **Response to Arguments**

2. In view of the appeal brief filed on June 7, 2005, PROSECUTION IS HEREBY REOPENED. A new grounds of rejection is set forth below:

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 14-15, 28-29, 33 and 42 rejected under 35 U.S.C. 102(e) as being anticipated by Ofek US Pat No 6477627.

5. Referring to claim 1, Ofek teaches the method for synchronizing transactions comprising:

- a. specifying a particular level of lag, said particular level of lag being a specified synchronicity setting [col. 9 lines 27-32].
- b. executing a series of commands at a first computing entity [col. 5 line 66 – col. 6 line 14].
- c. controlling a level of lag between computing entities by relaying the series of commands to a second computing entity until said synchronicity setting is reached [col. 9 lines 32-44].
- d. postponing relaying additional commands after said synchronicity setting is reached wherein the second computing entity lags behind the first computing entity by an amount of lag that is no greater than said specified synchronicity setting [col. 5 line 66 – col. 6 line 14 and col. 9 lines 32-57].

In particular, Ofek teaches writing to a local (15, 16) and remote storage (42, 43) devices substantially simultaneously. Furthermore, Ofek teaches an adaptive copy mode which allows the writing between the local and remote disks to be “out of synchronism” by a given limit. This limit can not be exceeded during the write operations and if the limit is reached, the system will revert back to a normal synchronous mode of operation which inherently would postpone any additional writes to a local disk until the remote disk completes a write.

6. Referring to claim 14, Ofek teaches writing to the local storage and remote storage substantially simultaneously [col. 5 line 66 – col. 6 line 14 and col. 9 lines 32-57].
7. Referring to claims 15, 28-29, 33 and 42, these are rejected on the same basis as set forth hereinabove. Ofek teaches the method and therefore teaches the program and system performing the method.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 2-13, 16-27, 30-32 and 34-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ofek as applied to claims 1, 15, 29 and 33 above.

10. Referring to claims 2-5 and 10-13, applicant(s) numerous definitions of a “first computing entity” and “second computing entity” is construed to be an admission that the criticality does not reside in the type of "computing entity" utilized and hence obvious variations of one another. Ofek teaches that the execution of commands comprises writing data between a first local storage system (15, 16) and a second remote storage system (42, 43) [fig. 1 and abstract].

11. Referring to claims 6-9, applicant(s) numerous means for specifying an amount of lag is construed to be an admission that the criticality does not reside in which means the amount of lag is specified and hence obvious variations of one another. Ofek teaches defining an amount of “lag” as a number of pending write requests [col. 9 lines 20-32].

12. Referring to claims 16-27, 30-32 and 34-41, these are rejected on the same basis as set forth hereinabove. Ofek teaches the method and therefore teaches the program and system performing the method.

***Conclusion***

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13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Connolly whose telephone number is (571) 272-3666. The examiner can normally be reached on M-F 8AM-5PM (except every first Friday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas C. Lee can be reached on (571) 272-3667. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Mark Connolly  
Examiner  
Art Unit 2115

mc  
June 8, 2006



**CHUN CAO**  
**PRIMARY EXAMINER**